12 May 1955

Assistant Director, RR
THRU : Chief, Economic Research
THRU : Acting, Chief, Industrial Division
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Visit to ATIC, Wright-Patterson Air Force Base, Dayton, Ohio

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1. [redacted] visited the Air Technical Intelligence Center at Dayton, Ohio on 10 May 1955. The purpose of the visit was to determine current ATIC views on new Soviet aircraft and their corresponding engines.

2. Personnel consulted were:

Maj. Povalski, ATIC
Mr. Homer Martin, ATIC
Mr. Clifford Brown, ATIC
Mr. Anthony Dobler, ATIC
Mr. E. Davidson, ATIC
Mr. Calvin Mueller, North American Aviation, Inc.

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3. [redacted] conferred with Mr. Dobler concerning Soviet aircraft engine capabilities. Of prime interest were the heavy axial flow engines used in Badger and Bison aircraft, medium sized axial engines used in the new twin-jet all-weather interceptor, and turbo-prop engines used in Bear aircraft. It was concluded that turbo-prop engine development in the USSR has proceeded even further than originally calculated, and that it now surpasses US developments by more than two years. Previous estimates have ascribed Soviet advances in this field almost entirely to the work of German engineers working at an experimental plant. Analysis of the power plant used in the Bear indicates that a parallel Soviet effort must have been undertaken at the same time, and that Soviet efforts were apparently more successful than the work carried on by the Germans. It was further determined that the over-all engine producing capability of the USSR is sufficient to support a far larger airframe program than is currently estimated. By using both ATIC and CIA methodologies it was calculated that one average sized engine plant could easily supply the entire quota of heavy axial flow engines required for Bison and Badger production

4. ATIC believes that the two new fighters uses the same engine, an axial flow turbojet of approximately 4,000 pounds thrust having a maximum diameter of 34-36 inches. Both of the new fighters have two engines. In one the engines are mounted on the wing. In the other the two engines are mounted side by side in the fuselage.

5. ATIC was uncertain as to the mission of the Bear aircraft. They stated that Bear is not a tanker or a cargo plane. They offered two suggestions as the role of the Bear. One possibility is that the Bear was started as an insurance program for the Bison. In which case only 10-20 will be produced assuming the Bison has proven satisfactory. The alternate suggestion is that the Bear will go into series production as a long range reconnaissance aircraft.

6. ATIC had not finished their estimates of the physical characteristics and of the performance of the Bear; however, a rough estimate was made that the Bear has the same range as the Bison. The Bear was estimated to be 12 percent larger than Badger. The wing span and length of the Bear is thought to be 160 feet and 144 feet respectively.

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